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TITLE: HIGH PURITY COBALT POWDER AND METHOD  
OF PRODUCING THE  
SAME

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ABSTRACT:

PROBLEM TO BE SOLVED: To provide a method capable of stably and easily producing high purity cobalt powder in which not only alkali metal elements, radioactive elements, Fe and Ni but also impurities such as gaseous components are reduced as possible and to provide high purity cobalt powder effective, e.g. for a sputtering target in which the formation of contaminants caused by the mutual diffusion of materials composing a laminated thin film is

suppressed, and particles and an abnormal discharging phenomenon thereby do not caused.

SOLUTION: As for the method for producing high purity cobalt powder, a cobalt raw material containing impurities is dissolved with hydrochloric acid, an aqueous solution of cobalt chloride having a hydrochloric acid concentration of 7 to 12 N is brought into contact with an anion exchange resin to adsorb cobalt, thereafter, cobalt is eluted with hydrochloric acid of 1 to 6N, the obtained eluted solution is evaporated and solidified or is neutralized with ammonium hydroxide to form into the chloride or hydroxide of cobalt and is moreover subjected to hydrogen reduction at  $\geq 600^{\circ}\text{C}$ .

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